AVOIDED COST ENERGY PRICING REPORT #2
DECEMBER 2, 1996

by
Scott Tomashefsky
California Energy Commission
Electricity Resource Assessment Office
(916) 654-4625

Disclaimer: The views and conclusions expressed in this paper are those of the author and should not be interpreted as necessarily representing the policies of either the Energy Commission or the State of California.

This report is number two of a series that examines short-run avoided cost prices paid by California utilities to qualifying facilities (QFs). Past issues are available on the Commission's web site.

On November 13, San Diego Gas & Electric Company (SDG&E) and the California Cogeneration Council (CCC) signed a Settlement Agreement intended to establish a new formula for calculating short-run avoided energy costs. The formula outlined in the Agreement is consistent with Section 390 of AB 1890 and, if adopted, will remain in effect until the CPUC is convinced that electricity prices available through the Power Exchange represent competitive market prices.

While consistent with AB 1890, the formula proposed by the settlement parties varies somewhat from that presented in the CPUC's October 25, 1996 proposed decision. As Table 1 indicates, the formula in the proposed decision starts with a benchmark short-run avoided cost price based on 1995 utility payments to QFs. Adjustments are made to the benchmark each month based on the ratio of current natural gas prices at the California border to the 1995 annual average border price.

TABLE 1
FORMULAS BEING CONSIDERED FOR INTERIM AVOIDED COST ENERGY PRICES

Proposed Decision	Price = $P_o * GP_n / GP_o$
Settlement Agreement	Price = $(P_o + P_o * (GP_n - GP_o)/GP_o * \text{Factor}) * \text{TOU}$

Definitions:
1) P_o - Starting energy price based on 1995 average energy prices paid by each public utility to non-utility power generators.
2) GP_n - Gas price for given period at the California border.
3) GP_o - Starting gas price index based on 1995 average of California index gas prices.
4) Factor - Fraction of time utility avoided energy cost varies with the border price of gas.
5) TOU - Factor used to adjust price based on time of use.

While the formula contained in the proposed decision is simple to apply, it does not account for power plant operational characteristics. The formula proposed by the settlement parties attempts to correct this deficiency by incorporating price variations based on time of use (peak, partial peak, off peak, super off-peak). In addition, the adjustment based on the ratio of current to benchmark natural gas prices depends upon the proportion that natural gas is considered the avoided fuel. Please note that each of the three utilities (Edison, PG&E, and SDG&E) utilize different estimates in applying the formula. Table 2 provides the basic factors proposed for each utility in the Settlement Agreement.

TABLE 2
FACTORS DRIVING UTILITY AVOIDED COST CALCULATIONS
Winter Season

	Edison	PG&E	SDG&E
Benchmark Avoided Cost Price (Cents/kWh)	2.0808	2.3973	2.2181
Benchmark Gas Price ($/MMBtu)	1.3975	1.6394	1.3975
% That Avoided Cost Fuel is Gas	70.7%	78.8%	60.5%
Time of Use Factor:			
Peak	n/a	n/a	1.165
Mid-Peak	1.219	1.032	1.136
Partial Peak	n/a	n/a	1.038
Super Off Peak	0.776	0.950	0.864

Summer Season

	Edison	PG&E	SDG&E
Benchmark Avoided Cost Price (Cents/kWh)	2.0808	1.8748	2.2181
Benchmark Gas Price ($/MMBtu)	1.3975	1.4457	1.3975
% That Avoided Cost Fuel is Gas	70.7%	62.7%	60.5%
Time of Use Factor:			
Peak	1.425	1.065	1.059
Mid-Peak	n/a	1.022	1.028
Partial Peak	0.853	n/a	0.889
Super Off Peak	0.776	0.946	0.750

To provide a tangible example of how the rates will be different under various proposals, Table 3 compares current avoided cost prices with hypothetical prices under both the CPUC proposed decision and settlement agreement rates. Compared to the current formula, QFs clearly receive higher payments from PG&E under both alternative approaches being considered in this proceeding. Edison payments are also higher to QFs with the exception of payments made during Super Off Peak periods. SDG&E QF payments under the Settlement Agreement will actually be lower than present payments.

TABLE 2
ILLUSTRATIVE AVOIDED COST COMPARISON
NOVEMBER 1996

	Edison	PG&E	SDG&E
Base Energy Price (Cents/kWh)	2.081	2.397	2.218
GP_n (11/96 CA Border $/MMBtu)	2.640	2.640	2.640
GP_o (1995 Avg CA Border $/MMBtu)	1.398	1.639	1.398
Factor (Share Avoided Fuel is Gas)	70.7%	78.8%	60.5%
CPUC Proposed Decision (Cents/kWh)	3.931	3.860	4.190
Settlement Rates			
On-Peak	n/a	n/a	3.608
Semi-Peak	3.674	3.586	3.573
Off-Peak	n/a	n/a	3.457
Super Off-Peak	3.095	3.492	3.249
Non-TOU	n/a	n/a	3.470
Actual November 1996 QF Prices (Non-TOU)	3.400	3.006	3.640

Status of Proceeding

Comments on the proposed settlement were submitted to the CPUC on November 25. PG&E, Edison, the Cogeneration Association of California, and the Office of Ratepayer Advocates offered support for the settlement. I am unaware of any parties opposing the settlement.

The CPUC will likely incorporate the provisions of the settlement in a draft decision revising the ALJ's October 25th proposed decision. If all of the changes can be incorporated expeditiously, the draft decision will be considered at the CPUC's December 9th public meeting. If not, parties will have to wait until December 23rd.